FILE COPY FOREST INSECT LABORATORY,
STANFORD UNIVERSITY CALIFORNIA.

REPORT ON THE FOREST INSECT CONTROL
HELENA NATIONAL FOREST

Forest Insect Field Station,
Coeur d'Alene, Idaho,
November 15, 1923.

Helena, Montana

S
Insect Control - Helena

November 15, 1923.

M E M O R A N D U M

During the period November 7 to November 13, 1923, an examination was made by H. J. Rust, Entomological Ranger, and Deputy Supervisor G. M. Brandborg, of the lodgepole pine stands on District No. 4 of the Helena National Forest (Big Belt Division).

The following drainages on this district were examined : Beaver Creek, Rock Creek, Trout Creek, and Magpie Creek.

HUNTERS GULCH INSECT CONTROL AREA

The Hunters Gulch area where control work was instituted during the month of May, 1923, was examinad carefully to determine the results of the work. In this connection reference is made to report, Hunters Gulch Insect Control Area, dated May 28, 1923, and map attached theretol

The entire area was examined thoroughly for new infestations, particularly the green timber surrounding the control groups. The results of the examination indicate that 25 trees were attacked and pitched out and 28 trees were attacked which contain nearly half grown larvae. The newly attacked trees were found in the vicinity of the various control groups, as shown on the accompanying map submitted with this report. Of the 28 trees which were successfully attacked, 16 were adjacent to the groups treated in May, 1923, while 12 were in an isolated group on the north side of the area. The location of this group is also indicated on the accompanying map.

The results of the examination indicate that the control work brought about a reduction in the number of trees killed of approximately 94%, which is considered very satisfactory.

A number of Rocky Mountain hairy woodpeckers were noted on the area and if they continue on the 1923 attacked trees it is believed that the infestation will be reduced 100% by the spring of 1924. However, a careful examination of the area should be made again during the early spring of 1924 and at that time any remaining infestations could be controlled at a very small expense.

The following table covers certain data that are believed pertinent in this report:

Diam.	Crown	Larvae	Pitched out Attack	Remarks
14"	C O D	0-1/2		In vicinity of
12"	D O M	0-1/2		group #3
12"	C O D	0-1/2		
10"	D O M		X	
10"	D O M		12 tubes	
12"	D O M		X	
14"	D O M		4 tubes	In vicinity of
16"	D O D		6 tubes	group #4 - Dead top
12"	C O D	0-1/2		by porcupine girdling
14"	D O M	0-1/2		
10"	D O M		3 tubes	In vicinity of
12"	C O D		13 tubes	group #8
14"	D O M		6 tubes	
20"	D O D	0-1/2		Top killed by porcupine girdling.
20"	C O D	0-1/2		
14"	C O D	0-1/2		
12"	D O M		1 tube	
12"	D O M		6 tubes	
20"	C O D	0-1/2	Top killed by porcupine	In vicinity of group #9
12"	C O D	0-1/2	" " "	"
16"	D O M	0-1/2		
16"	C O D	0-1/2		
16"	C O D	0-1/2		
16"	C O D	0-1/2	Top killed by porcupine	
14"	C O D	0-1/2		
12"	D O M	0-1/2		
14"	C O D		X	In vicinity of
16"	D O M		10 tubes	group #10
14"	D O M		X	In vicinity of
10"	D O M		X	group #11
18"	D O M		X	
18"	D O M		X	
14"	D O M		X	
16"	D O M		8 tubes	In vicinity of group #12

Diam.	Crown	Larvae	Pitched out Attack	Remarks
8"	D O M		8 tubes	) In vicinity of
14"	C O D		10 tubes	) group #14
14"	C O D		18 tubes	) In vicinity of) group #15
8"	Suppressed		X	) In vicinity of) group #16
8"	Suppressed		X	) In vicinity of) group #17
	Total	16	23	In vicinity of groups:
18"	D O M	0-1/2		This group of new
18"	D O M	0-1/2		infested trees (1923
20"	D O M	0-1/2		attack) along edge
16"	D O M	0-1/2		of timber on creek,
20"	D O M	0-1/2		about 3 chains west
12"	D O M	0-1/2		from groups 15-16.
14"	C O D	0-1/2		
16"	D O M	0-1/2		
16"	D O M	0-1/2		
16"	C O D	0-1/2		
14"	C O D		X	
12"	D O M		X	
14"	D O M	0-1/2		
16"	D O M	0-1/2		
		18	2	Total for this group

Total 1923 infestation

28 trees containing broods of larvae
25 trees pitched out attack

JIM BALL BASIN

The lodgepole pine stand located in Red Gulch in Sec. 3, T. 12 N., R. 1 E., and area in the immediate vicinity referred to in Insect Control report dated May 28, 1923, as the Jim Ball Basin area, was examined by Messrs. Rust and Brandborg on November 9 and 10, 1923.

During the month of May, 1923, 84 infested trees were treated on this area. A total of 9 1923 attacked trees were found during this examination, two of which were pitched out attack. The infested trees are located in the bottom of Red Gulch about a quarter mile from the mouth of the gulch in the immediate vicinity of the treated trees. It is believed these infested trees should be treated during the spring of 1924 and the entire area carefully cruised in the event any control work is undertaken, to pick up scattered infested trees.

The lodgepole pine areas on Secs 32 and 33, T. 13 N., R. 1 E. and adjacent areas were examined and 12 scattered 1923 attacked trees were found. A number of infested trees were treated on this area during the spring control, but the infestation is found to be still in a normal stage. If control work is inaugurated in the spring of 1924 this ares should be examined and infested trees treated.

The lower portion of Onion Creek in the same locality was examined and no new work was noted but another examination should be made during the coming spring.

MAGPIE GULCH AREA

At the time the Magpie area was examined in the spring of 1923 it was recommended that no control work be done on this area and that it be left for at least one year as a check against the results obtained by the preventative measures used in checking the epidemic on the Hunters Gulch area. A more thorough examination of this area was made on November 10 to 12, 1923, than at any previous time and it was found that a heavy infestation has been present over the entire stand for some years past. Considerable woodpecker work was in evidence but not sufficient to keep the infestation under control and as a result it is estimated that there are approximately 1000 1923 attacked trees on an entire area of about 1000 acres. This stand of lodgepole pine will average from 2½ to 3 M. board feet per acre and is remarkably clean and thrifty with very few defective trees. From borings made

the trees average from 125 to 150 years old. There is but a small amount of dead and down timber and but very little reproduction. The isolation of this lodgepole pine stand, the value of the remaining green timber, and its accessibility would justify control measures similar to those applied to the Hunters Gulch area and it is recommended that control measures be inaugurated on this area during the spring of 1924.

Respectfully submitted,

Henry J. Rust

Entomological Ranger

BUREAU OF ENTOMOLOGY
Forest Insect Field Station,
Coeur d'Alene, Idaho.

Approved:

A. H. Abbott

Forest Supervisor

Approved:

James L. Evenden

Entomologist

BUREAU OF ENTOMOLOGY
Forest Insect Field Station,
Coeur d'Alene, Idaho.

Form 220

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

MAP SHEET

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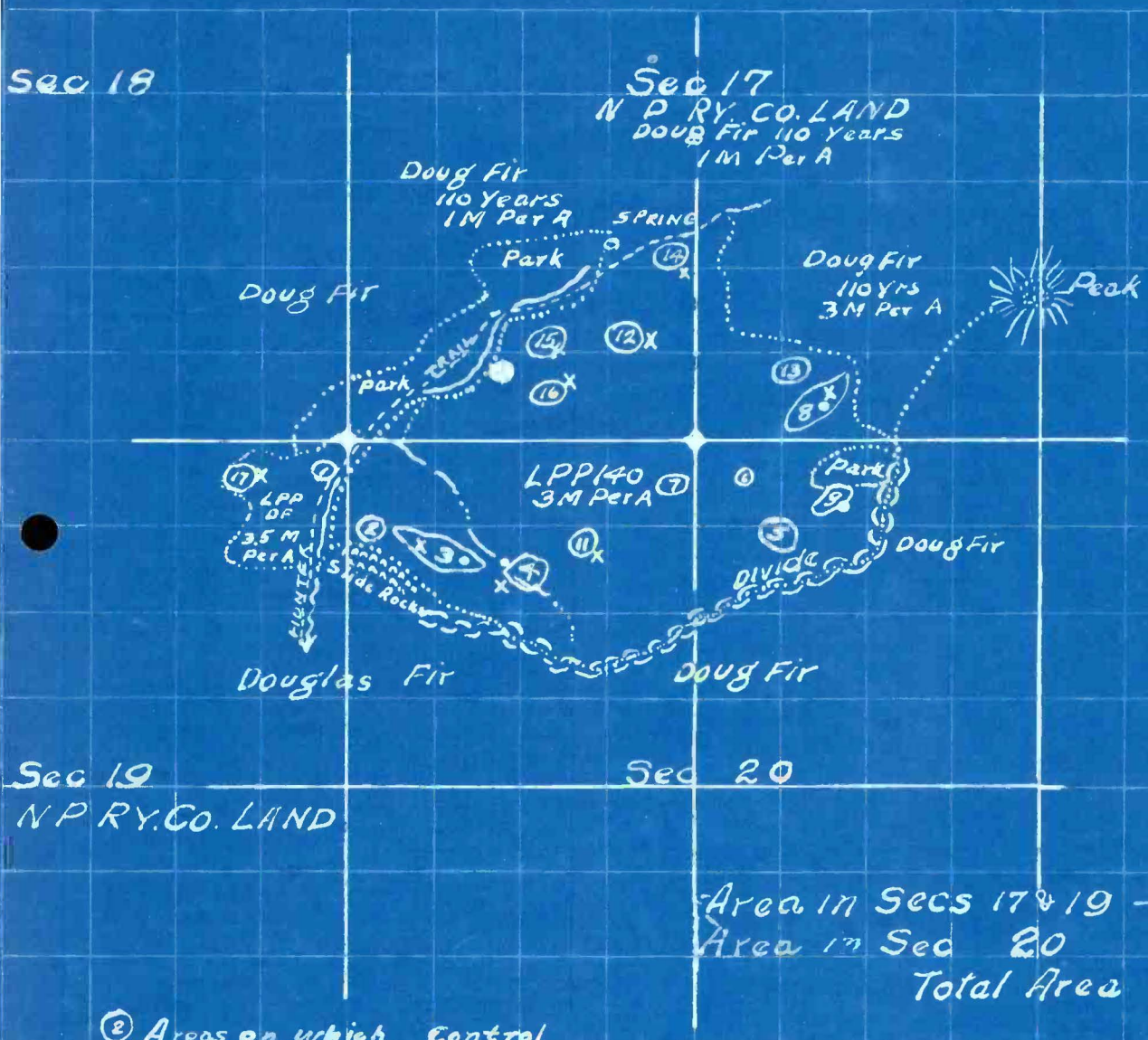
INSECT CONTROL HELENA National Forest.

Division ____ District 4 ____ Block ____

T. 13 N , R. 1 W M., Sections 17, 18, 19-20 Quarter ____

Mapped by ____ Scale: 4 inches = 1 mile.



Area in Secs 17 & 19 - 92 A
Area in Sec 20 114 A
Total Area 206 A

② Areas on which Control Measures Were Taken

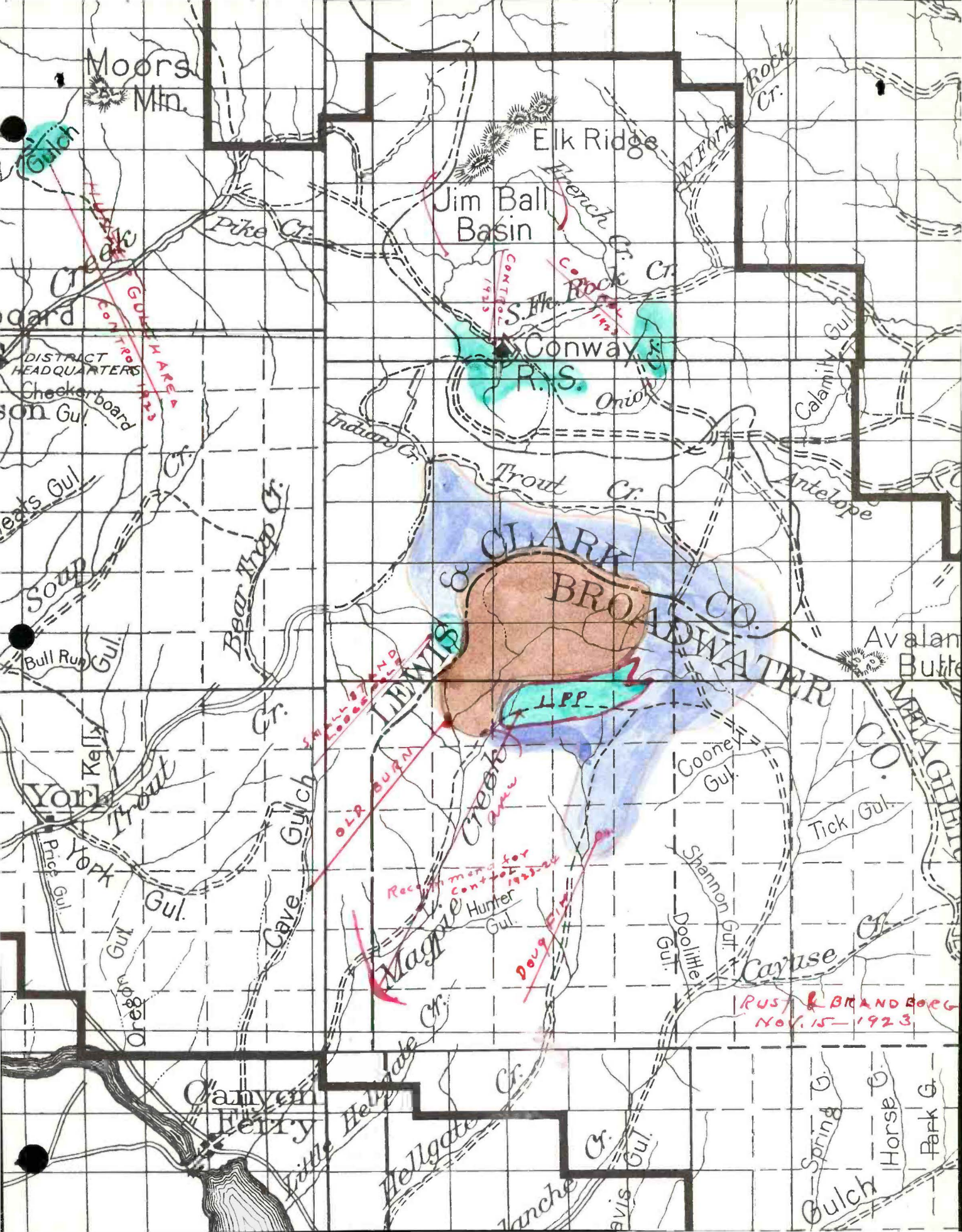
● New attack recorded by Rust & Brandberg - Nov 7-23 - Successful
X New attack recorded by Rust & Brandberg - Nov. 7 23 - Pitched out.

Field work by FLINT Date 5-24-23

REMARKS: HUNTERS GULCH INSECT CONTROL Area Controlled 206 A

Tracing & Additions By H.J. Rust in Field Nov. 13-1923

9-1601


Moors Mtn.
Elk Ridge
Jim Ball Basin
Rock Cr.
W. Fork
French Cr.
Pike Cr.
Creek
Gulch
Conway R.S.
S. Fk. Rock Cr.
Onion
Calamity Gul.
Indian Cr.
Trout Cr.
Antelope
DISTRICT HEADQUARTERS
Checkerboard
Gul.
Cr.
Bear Trap Cr.
Soup
Bull Run Gul.
CLARK & BROADWATER CO.
LEWIS
Avalan
Butte
UPP
Coonley Gul.
Tick Gul.
Shannon Gul.
Doolittle Gul.
Cayuse Cr.
Kelly
Trout
York
Price Gul.
Gul.
Cave Gulch
Maple Creek
Hunter Gul.
Hellgate Cr.
Canyon Ferry
Little Hellgate Cr.
Spring G.
Horse G.
Park G.
Gulch
RUST & BRANDBERG
NOV. 15—1923

631.2
~~321.42~~